

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P331443-830

Luminaire Tested: **S122DIP-S1005D725U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331443-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S1005D725U830-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 725 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6471.9 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

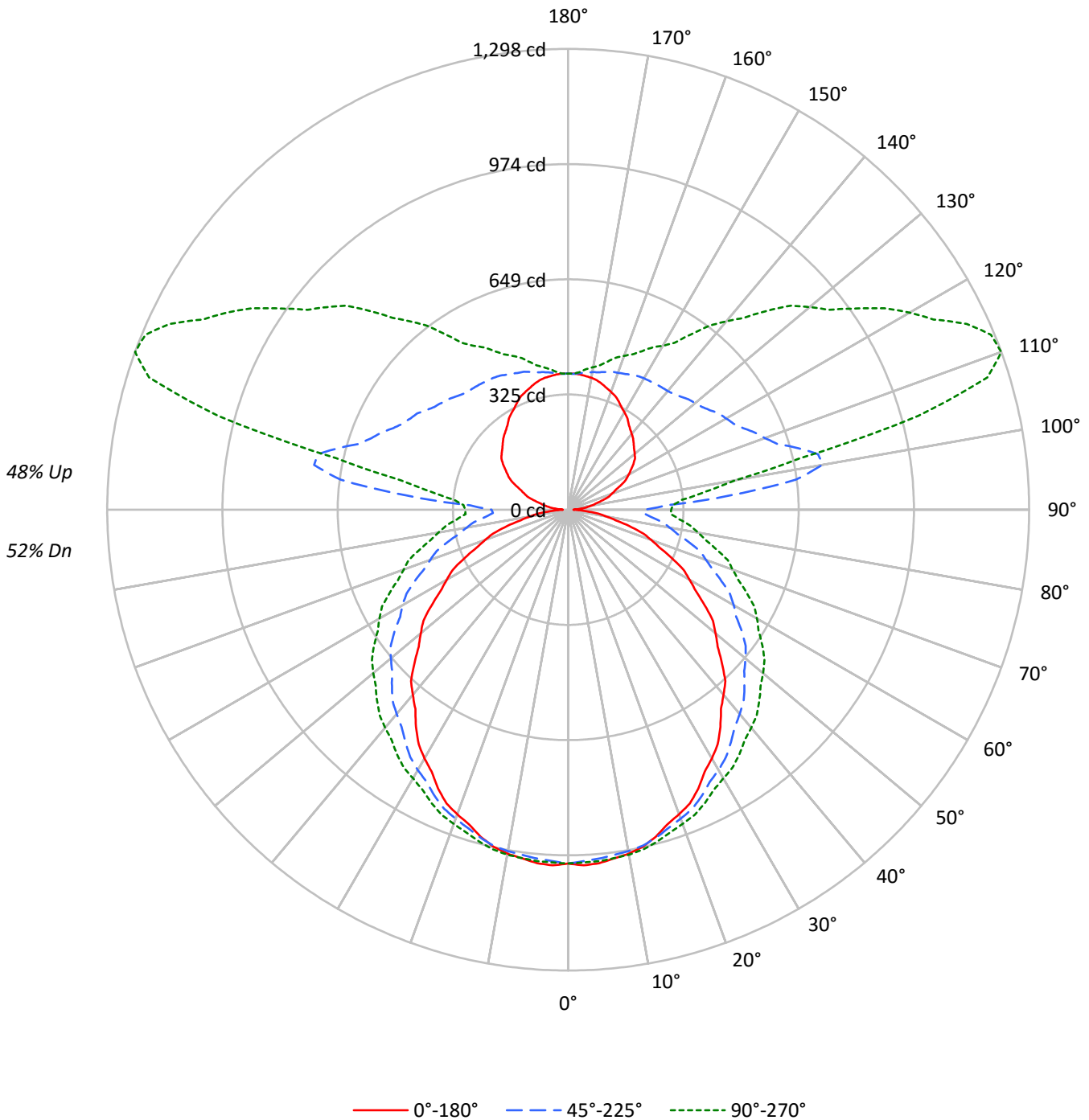
Input Watts (W): 60.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	52
1	97	92	87	83	89	85	81	77	72	69	66	60	58	56	49	47	46	41
2	87	79	72	67	80	73	67	62	62	57	54	52	48	45	42	40	38	33
3	79	69	61	55	73	64	57	51	54	49	44	45	41	38	37	34	31	27
4	72	61	52	46	66	56	49	43	48	42	37	40	35	32	33	29	27	23
5	66	54	45	39	61	50	42	37	43	37	32	36	31	27	29	26	23	20
6	61	48	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17
7	56	43	35	29	52	40	33	28	35	29	24	29	24	21	24	20	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	18	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	17	20	17	14	12
10	45	33	25	20	42	31	24	19	27	21	17	23	18	15	19	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16091	16091	16091
5°	16172	15491	15432
10°	16069	15033	14865
15°	15848	14548	14266
20°	15567	14030	13691
25°	15292	13528	13167
30°	14902	13015	12643
35°	14508	12517	12274
40°	14092	12094	11903
45°	13700	11715	11587
50°	13277	11373	11276
55°	12834	11004	10959
60°	12292	10623	10624
65°	11728	10173	10227
70°	11096	9693	9797
75°	10286	9222	9401
80°	9006	8739	9001
85°	7780	8321	8687



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.5
10°-20°	270.8	4.2
20°-30°	410.4	6.3
30°-40°	499.9	7.7
40°-50°	537.8	8.3
50°-60°	522.2	8.1
60°-70°	456.0	7.0
70°-80°	351.0	5.4
80°-90°	239.0	3.7
90°-100°	315.5	4.9
100°-110°	638.4	9.9
110°-120°	630.5	9.7
120°-130°	498.3	7.7
130°-140°	383.4	5.9
140°-150°	279.1	4.3
150°-160°	193.9	3.0
160°-170°	114.1	1.8
170°-180°	37.1	0.6
0°-30°	775.7	12.0
0°-40°	1275.5	19.7
0°-60°	2335.5	36.1
0°-90°	3381.6	52.2
90°-120°	1584.4	24.5
90°-150°	2745.2	42.4
90°-180°	3090.0	47.7
0°-180°	6471.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	1000	995	987	995	994	95
15°	953	956	956	968	968	268
25°	867	877	890	906	911	398
35°	747	772	799	829	841	467
45°	612	652	702	745	761	473
55°	470	523	596	647	667	420
65°	321	392	477	534	555	318
75°	178	259	351	411	432	188
85°	52	142	234	292	315	56
90°	15	109	216	270	290	11
95°	37	144	455	328	322	36
105°	97	187	670	1149	1021	104
115°	164	224	544	1071	1238	162
125°	224	267	488	850	988	199
135°	261	312	450	687	792	202
145°	296	340	432	545	602	186
155°	337	364	419	474	493	155
165°	367	378	402	426	432	103
175°	382	383	386	391	390	36
180°	383	383	383	383	383	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	1002.5	1001.7	1000.9	1000.1	999.4	998.1	996.3	994.5	992.7	990.9	992.2
5°	999.6	998.6	997.7	996.6	995.7	994.3	992.4	990.4	988.5	986.6	988.5
7.5°	990.6	990.0	989.3	988.7	988.1	987.0	985.5	984.0	982.6	981.1	983.4
10°	983.7	983.1	982.4	981.8	981.1	980.3	979.4	978.4	977.4	976.5	979.0
12.5°	972.1	972.2	972.4	972.5	972.6	972.3	971.7	970.9	970.3	969.5	972.1
15°	953.4	954.0	954.6	955.3	955.9	956.2	956.2	956.2	956.2	956.2	959.1
17.5°	929.1	930.5	931.8	933.1	934.4	935.7	936.7	937.7	938.8	939.8	942.8
20°	912.9	914.5	916.2	917.8	919.4	920.8	922.1	923.3	924.6	926.0	929.4
22.5°	895.6	897.4	899.3	901.2	903.1	904.8	906.6	908.4	910.2	912.0	915.6
25°	866.7	868.9	871.2	873.5	875.7	878.3	881.1	884.0	886.9	889.8	893.6
27.5°	832.0	835.7	839.3	843.0	846.7	850.2	853.6	857.0	860.4	863.8	868.6
30°	808.9	813.0	817.3	821.4	825.6	829.8	834.0	838.1	842.3	846.5	851.6
32.5°	783.4	788.2	792.9	797.6	802.2	807.0	812.0	816.9	821.9	826.8	832.7
35°	746.8	752.2	757.7	763.2	768.6	774.4	780.5	786.6	792.7	798.8	805.9
37.5°	706.9	713.2	719.5	725.8	732.1	739.1	747.1	755.0	762.9	770.8	778.6
40°	680.3	687.4	694.5	701.5	708.6	716.4	725.1	733.8	742.4	751.1	759.5
42.5°	655.0	661.9	669.0	676.1	683.2	691.6	701.6	711.6	721.5	731.5	740.6
45°	612.5	621.1	629.8	638.5	647.1	657.0	668.4	679.6	690.8	702.0	712.0
47.5°	570.6	580.0	589.5	598.9	608.3	619.6	632.8	645.9	659.1	672.2	682.7
50°	541.7	551.7	561.6	571.6	581.5	593.7	608.1	622.5	637.0	651.5	662.4
52.5°	514.0	524.4	534.9	545.4	555.8	568.6	583.8	599.1	614.3	629.5	640.6
55°	469.5	481.0	492.6	504.2	515.7	529.8	546.5	563.2	579.9	596.5	608.1
57.5°	425.6	438.6	451.6	464.7	477.7	492.7	509.7	526.7	543.8	560.7	573.2
60°	394.4	408.1	422.0	435.7	449.6	465.6	483.9	502.2	520.5	538.8	551.0
62.5°	366.6	380.9	395.2	409.5	423.9	440.2	458.5	476.7	495.1	513.4	526.3
65°	320.7	336.4	352.1	367.9	383.6	401.0	419.9	438.8	457.7	476.6	489.8
67.5°	278.5	294.9	311.3	327.8	344.2	362.1	381.5	401.0	420.3	439.7	453.0
70°	248.5	265.1	281.8	298.5	315.2	333.5	353.5	373.3	393.2	413.1	426.9
72.5°	220.7	237.9	255.1	272.3	289.5	308.2	328.4	348.6	368.7	388.9	402.4
75°	177.7	195.7	213.6	231.6	249.6	268.8	289.4	309.9	330.5	351.0	364.8
77.5°	136.1	154.9	173.7	192.5	211.3	231.1	252.0	272.9	293.7	314.6	328.4
80°	108.3	127.9	147.5	167.1	186.6	206.9	227.7	248.6	269.5	290.3	303.8
82.5°	85.2	104.5	123.9	143.2	162.5	182.8	203.9	225.0	246.1	267.2	280.7
85°	52.0	71.9	91.8	111.7	131.6	151.8	172.4	192.9	213.5	234.0	247.5
87.5°	28.5	48.1	67.8	87.2	106.6	126.9	148.2	169.8	191.1	211.9	224.8
90°	15.2	36.0	57.6	77.7	97.7	119.5	143.7	169.5	194.4	215.7	227.8
92.5°	22.2	43.5	66.3	86.8	109.1	134.6	171.1	214.2	255.0	276.1	273.7
95°	37.3	55.4	77.9	99.5	126.4	161.3	214.4	297.7	402.6	455.0	431.0
97.5°	52.1	69.5	90.8	114.1	141.1	177.1	238.2	346.0	506.5	646.8	682.8
100°	66.8	81.0	99.4	123.1	149.7	185.3	242.3	350.2	527.3	726.5	844.5
102.5°	79.3	91.7	109.2	131.9	158.0	192.7	246.4	343.7	508.5	721.3	899.8
105°	97.1	109.3	123.9	144.2	169.8	203.3	254.7	337.0	475.2	670.1	877.4
107.5°	118.0	127.8	140.3	157.9	181.4	214.0	263.5	336.7	453.2	616.5	800.4
110°	131.0	140.4	151.3	167.2	189.2	221.6	269.8	338.5	444.1	589.6	752.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	144.0	152.3	162.8	177.1	197.4	229.5	275.7	340.8	437.3	568.4	716.0
115°	164.2	171.4	179.4	191.7	210.0	238.8	285.0	344.4	430.3	543.5	669.5
117.5°	183.7	188.9	195.7	205.8	222.3	250.7	293.4	348.8	424.9	524.7	635.5
120°	196.6	200.9	206.6	214.5	230.5	258.2	299.7	352.4	422.0	513.7	616.2
122.5°	209.1	211.9	216.8	224.5	239.8	267.3	306.3	355.2	419.9	504.4	599.0
125°	223.9	226.1	230.5	239.4	254.1	279.9	316.7	360.1	416.0	488.2	572.8
127.5°	236.9	239.5	245.3	254.8	268.6	293.8	327.9	365.9	414.0	475.3	548.5
130°	244.6	247.1	254.2	264.2	278.6	302.5	335.0	369.8	413.3	467.2	532.3
132.5°	251.7	254.9	262.5	273.1	288.0	311.1	340.9	373.5	412.6	459.7	518.1
135°	260.8	263.7	272.6	283.6	300.6	322.8	349.6	378.6	411.3	449.9	498.6
137.5°	270.8	274.3	283.0	294.8	311.5	331.4	356.1	381.4	409.7	441.3	482.5
140°	278.5	281.1	289.6	301.0	317.0	336.3	359.0	382.5	408.2	436.1	473.0
142.5°	286.2	288.1	296.1	307.6	322.9	340.7	362.4	384.7	408.2	433.9	465.4
145°	296.1	299.2	306.5	317.5	332.2	348.5	368.4	389.0	409.6	431.8	457.2
147.5°	308.6	310.8	317.8	328.0	340.3	354.7	373.4	391.5	410.3	429.1	450.0
150°	316.8	319.1	324.9	334.5	345.5	358.8	375.8	392.7	409.6	427.3	445.0
152.5°	325.1	326.1	332.0	340.4	350.8	363.0	378.1	393.3	408.5	424.4	440.9
155°	336.7	337.4	341.9	350.0	358.1	369.1	381.6	394.2	406.7	419.2	433.2
157.5°	346.5	347.1	350.7	357.8	364.3	373.5	384.2	394.2	403.3	414.0	426.0
160°	352.9	353.6	356.6	362.5	368.4	376.5	385.3	394.2	401.5	410.4	420.8
162.5°	359.4	358.9	361.9	366.6	371.9	378.2	386.0	393.6	399.8	407.5	415.9
165°	366.9	366.2	367.7	372.1	375.8	380.2	386.8	392.0	396.4	401.5	408.2
167.5°	373.2	372.2	373.5	376.4	379.0	381.8	386.6	391.0	393.0	396.4	400.5
170°	377.2	375.8	376.5	378.7	380.2	382.4	386.1	389.7	391.2	393.4	396.4
172.5°	379.6	378.7	378.2	380.5	381.4	383.0	385.5	388.0	388.9	389.9	392.3
175°	382.4	381.6	380.9	382.4	382.4	383.1	384.6	386.1	385.3	386.1	386.8
177.5°	383.7	382.6	381.9	383.1	383.1	383.1	383.7	384.9	383.7	383.1	383.7
180°	383.1	383.1	383.1	383.1	383.1	383.1	383.1	383.1	383.1	383.1	383.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	996.6	996.6	996.6	996.6	996.6	996.6	996.6	996.6
2.5°	993.4	994.8	996.1	996.5	995.9	995.4	994.9	994.4
5°	990.4	992.4	994.3	995.0	994.8	994.5	994.1	993.8
7.5°	985.7	988.1	990.3	991.4	991.0	990.7	990.3	990.0
10°	981.6	984.2	986.7	987.9	987.5	987.2	986.9	986.6
12.5°	974.7	977.2	979.8	980.9	980.6	980.2	980.0	979.7
15°	962.1	964.9	967.8	969.1	968.7	968.5	968.1	967.8
17.5°	945.8	948.9	951.9	953.4	953.4	953.4	953.4	953.4
20°	932.9	936.5	940.0	941.8	941.8	941.8	941.8	941.8
22.5°	919.1	922.7	926.1	928.2	928.7	929.3	929.7	930.3
25°	897.5	901.4	905.2	907.6	908.6	909.6	910.5	911.4
27.5°	873.5	878.4	883.4	886.1	886.8	887.5	888.3	888.9
30°	856.8	861.9	867.0	870.1	871.0	871.9	873.0	873.9
32.5°	838.7	844.5	850.5	854.2	856.0	857.7	859.5	861.2
35°	812.9	820.0	827.1	831.7	834.0	836.2	838.5	840.7
37.5°	786.5	794.3	802.1	807.2	809.5	812.0	814.4	816.7
40°	767.8	776.2	784.5	790.1	793.1	795.9	798.8	801.7
42.5°	749.7	758.8	768.0	773.9	776.8	779.8	782.6	785.5
45°	721.9	731.9	741.8	748.4	751.6	754.8	758.0	761.2
47.5°	693.1	703.4	713.9	720.9	724.3	727.9	731.4	735.0
50°	673.3	684.2	695.1	702.4	705.9	709.4	712.9	716.4
52.5°	651.9	663.0	674.2	681.6	685.4	689.3	693.1	696.8
55°	619.7	631.2	642.8	650.6	654.8	659.0	663.2	667.3
57.5°	585.7	598.1	610.6	618.9	623.1	627.4	631.6	635.8
60°	563.2	575.4	587.6	596.0	600.4	604.9	609.4	613.9
62.5°	539.3	552.2	565.2	573.8	578.1	582.3	586.5	590.8
65°	503.0	516.1	529.3	538.0	542.2	546.3	550.5	554.7
67.5°	466.3	479.6	492.9	501.7	506.1	510.4	514.8	519.2
70°	440.7	454.5	468.3	477.1	481.0	484.8	488.7	492.6
72.5°	415.9	429.5	443.0	452.1	456.8	461.4	466.0	470.6
75°	378.6	392.4	406.2	415.2	419.3	423.6	427.7	431.9
77.5°	342.0	355.8	369.6	378.7	383.1	387.7	392.2	396.6
80°	317.3	330.8	344.3	353.3	357.8	362.2	366.7	371.3
82.5°	294.2	307.6	321.1	330.0	334.2	338.5	342.7	346.9
85°	261.0	274.5	287.9	296.9	301.4	305.9	310.4	314.9
87.5°	237.8	250.5	263.9	272.7	276.8	280.9	285.0	289.2
90°	240.0	251.3	265.6	274.7	278.5	282.4	286.3	290.1
92.5°	269.7	273.1	279.6	283.1	286.4	287.9	292.4	295.0
95°	383.5	350.8	332.1	323.9	318.1	316.1	317.7	322.3
97.5°	627.9	557.9	490.0	444.7	413.2	398.9	391.9	389.6
100°	840.8	761.4	672.3	590.9	533.3	505.1	487.3	477.6
102.5°	977.9	968.8	906.6	819.8	756.9	706.3	683.2	668.7
105°	1041.9	1136.4	1157.2	1140.3	1098.2	1055.9	1027.8	1021.1
107.5°	973.7	1109.9	1197.3	1240.2	1249.4	1250.5	1247.6	1237.5
110°	918.0	1060.2	1164.8	1232.1	1267.3	1284.9	1295.0	1297.8



TEST NUMBER: P331443-830

CATALOG NUMBER: S122DIP-S1005D725U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	866.3	1003.1	1114.3	1190.4	1238.0	1265.0	1281.0	1288.5
115°	800.7	923.8	1029.9	1112.4	1168.3	1205.7	1228.4	1238.5
117.5°	748.3	857.3	954.4	1032.0	1088.5	1127.7	1151.1	1160.0
120°	720.2	820.6	907.7	981.0	1036.0	1074.2	1099.2	1110.0
122.5°	696.9	789.3	872.0	938.5	987.8	1024.8	1046.8	1056.0
125°	661.8	746.3	819.8	880.9	926.5	957.3	978.6	987.5
127.5°	627.1	703.7	772.9	829.2	869.3	898.4	917.1	924.6
130°	604.9	676.0	741.9	795.7	834.3	862.0	879.3	887.7
132.5°	583.3	649.4	710.4	761.1	799.2	826.8	842.9	850.7
135°	553.3	608.6	663.9	709.9	744.1	771.0	786.8	792.4
137.5°	527.4	574.0	618.5	658.5	689.6	712.7	726.5	733.1
140°	511.2	551.8	590.8	626.7	652.2	673.3	686.3	692.6
142.5°	498.6	532.8	566.1	596.1	620.1	639.2	650.7	653.3
145°	482.0	508.3	533.0	556.2	575.4	589.6	598.5	602.4
147.5°	469.7	489.1	507.2	523.3	538.7	549.5	555.3	557.3
150°	462.7	478.9	494.4	507.7	518.7	527.5	532.0	532.7
152.5°	456.2	471.3	484.4	495.9	504.5	512.2	515.5	515.6
155°	447.2	459.0	470.0	478.2	486.3	491.4	494.4	492.9
157.5°	436.8	446.7	455.9	462.2	468.0	472.3	473.6	473.6
160°	430.3	438.4	446.5	451.7	456.9	460.5	461.2	461.2
162.5°	423.8	430.7	437.6	441.7	446.8	449.3	450.1	449.4
165°	414.1	419.2	424.4	427.3	430.3	433.2	433.2	432.5
167.5°	404.8	408.8	412.3	415.0	416.3	417.9	417.7	416.9
170°	400.1	402.3	405.2	406.7	407.5	409.6	408.9	407.5
172.5°	394.7	396.4	398.8	399.6	400.4	401.4	400.7	399.8
175°	389.0	389.7	390.5	391.2	391.2	392.0	391.2	389.7
177.5°	384.9	384.9	385.5	385.5	385.5	385.5	384.9	383.7
180°	383.1	383.1	383.1	383.1	383.1	383.1	383.1	383.1

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